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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/539,429

11/04/2005

Sebastien Brangoulo

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EXAMINER

ANYIKIRE, CHIKAODILI E

ART UNIT

PAPER NUMBER

2621

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/539,429	<b>Applicant(s)</b> BRANGOULO ET AL.	
	<b>Examiner</b> CHIKAODILI E. ANYIKIRE	<b>Art Unit</b> 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 November 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 November 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                        |                                                                   |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____                                                            | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. This application is responsive to application number (10539429) filed on November 04, 2005. Claims 1-22 are pending and have been examined.

### ***Information Disclosure Statement***

2. Acknowledgement is made of applicant's information disclosure statement.

### ***Claim Rejections - 35 USC § 101***

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

Claims that recite nothing but the physical characteristics of a form of energy, such as a frequency, voltage, or the strength of a magnetic field, define energy or magnetism, per se, and as such are nonstatutory natural phenomena. O'Reilly, 56 U.S. (15 How.) at 112-14. Moreover, it does not appear that a claim reciting a signal encoded with functional descriptive material falls within any of the categories of patentable subject matter set forth in Sec. 101.

... a signal does not fall within one of the four statutory classes of Sec. 101.

... a signal claims are ineligible for patent protection because they do not fall within any of the four statutory classes of Sec. 101.

Claims 18-20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows. Claims 18-20 define a signal with descriptive material. While "functional descriptive material" may be claimed as a statutory product (i.e., a "manufacture") when embodied on a tangible computer readable medium, a signal embodying that same functional descriptive material is neither a process nor a product (i.e., a tangible "thing") and therefore does not fall within one of the four statutory classes of § 101. Rather, "signal" is form of energy, in the absence of any physical structure or tangible material.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim 1-4 and 15-18 rejected under 35 U.S.C. 102(b) as being anticipated by Zeng et al (US 6,236,757, hereafter Zeng).

As per **claim 1**, Zeng discloses method for encoding an image with which a hierarchical mesh is associated, implementing a wavelet-encoding of said mesh, wherein said encoding method implements at least two types of wavelets applied selectively to distinct zones of said image (column 3 lines 20-23 and lines 50-52).

As per **claim 2**, Zeng discloses encoding method according to claim 1 wherein the method comprises: partitioning said image into at least two zones of distinct natures, the nature of each zone being a function of at least one characteristic parameter of said mesh in said zone; for each of said zones, assigning, at least as a function of said nature, of a type of wavelet enabling the optimizing of said encoding of said mesh of said zone (column 3 lines 32-49).

As per **claim 3**, Encoding method according to claim 2 wherein said characteristic parameter of said mesh takes account of the density of said mesh in said zone (column 3 lines 32-49).

As per **claim 4**, Zeng discloses encoding method according to claim 2 wherein said nature of said zone belongs to the group comprising: at least one type of texture; at least one type of contour; at least one type of singularity; at least one type of color; and at least one type of shape (column 3 lines 50-52).

As per **claim 5**, Encoding method according to claim 1 wherein said wavelet types belong to the group comprising: Loop wavelets; Butterfly wavelets; Catmull-Clark wavelets; and affine wavelets.

Regarding **claim 15**, arguments analogous to those presented for claim 1 are applicable for claim 15.

Regarding **claim 16**, arguments analogous to those presented for claim 1 are applicable for claim 16.

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Regarding **claim 17**, arguments analogous to those presented for claim 1 are applicable for claim 17.

Regarding **claim 18**, arguments analogous to those presented for claim 1 are applicable for claim 18.

As per **claim 21**, Zeng discloses encoding method according to claim 1 and further comprising application of the method to at least one of the fields belonging to the group comprising: video streaming; video storage; video on demand; and video mail (column 6 lines 54-56).

Regarding **claim 22**, arguments analogous to those presented for claim 21 are applicable for claim 22.

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

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4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
8. Claim 5 rejected under 35 U.S.C. 103(a) as being unpatentable over Zeng et al (US 6,236,757, hereafter Zeng) in view of well-known knowledge.

As per **claim 5**, Zeng discloses encoding method according to claim 1 wherein said wavelet types belong to the group (column 5 lines 15-21).

However, Zeng does not explicitly teach encoding method according to claim 1 wherein said wavelet types belong to the group comprising: Loop wavelets; Butterfly wavelets; Catmull-Clark wavelets; and affine wavelets.

In the same field of endeavor, it is well known knowledge to apply these wavelet types to different scenarios depending on a image region. Official Notice is taken.

Therefore, it would have been obvious for one having skill in the art at the time of the invention to modify the invention of Zeng in view of well-known knowledge. The advantage would be the optimization of coding regions within an image.

#### ***Allowable Subject Matter***

9. Claims 6-14 and 19-20 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHIKAODILI E. ANYIKIRE whose telephone number is (571)270-1445. The examiner can normally be reached on Monday to Friday, 7:30 am to 5 pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha D. Banks-Harold can be reached on (571) 272 - 7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Marsha D. Banks-Harold/  
Supervisory Patent Examiner, Art Unit 2621

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